

Effects of melatonin supplementation on weight and body fat mass percentage in overweight or obese people

S. Mohammadi* R. Shakerhosseini** R. Rastmanesh** K. Jafarian*** Z. Amiri**** F. Jahangir*****

*Instructor of Nutrition, Lorestan University of Medical Sciences, Khorramabad, Iran

**Assistant Professor of Nutrition, Shahid Beheshti University of Medical Sciences, Tehran, Iran

***Assistant Professor of Nutrition, Tehran University of Medical Sciences, Tehran, Iran

****Assistant Professor of Biostatistics, Shahid Beheshti University of Medical Sciences, Tehran, Iran

*****B.Sc. in Nutrition, Shahid Beheshti University of Medical Sciences, Tehran, Iran

*Abstract

Background: Studies have shown that melatonin consumption can decrease weight and body fat mass percentage.

Objective: The aim of this study was to determine the effects of melatonin supplementation on weight and body fat mass percentage in overweight or obese people.

Methods: This clinical trial was carried out on 38 overweight or class-I obese adults (8 men and 30 women) in Tehran in 2013. Subjects were allocated to melatonin or placebo groups. The intervention period was 12 weeks and 3 mg/day melatonin was administered. Data were analyzed using repeated measure ANOVA and paired T-test.

Findings: Weight and body mass index was significantly decreased in both groups in the study period, but these changes were only significant in the first six weeks of the study. Body fat mass percentage was significantly decreased in the melatonin group. Salivary melatonin level was not significantly different in both groups after the study period.

Conclusion: With regards to the results, it seems that supplementation with 3 mg/day melatonin does not make a significant decrease in weight and body mass index, but decrease body fat mass percentage. More investigations are required to confirm the findings.

Keywords: Melatonin, Overweight, Obesity, Body mass Index

Citation: Mohammadi S, Shakerhosseini R, Rastmanesh R, Jafarian K, Amiri Z, Jahangir F. Effects of melatonin supplementation on weight and body fat mass percentage in overweight or obese people. J Qazvin Univ Med Sci. 2015; 19 (5): 24-31.

Corresponding Address: Salman Mohammadi, Departement of Nutrition, Lorestan University of Medical Sciences, Khorramabad, Iran

Email: S.mohammadi.diet@gmail.com

Tel: +98-912-6354561

Received: 11 Mar 2015

Accepted: 13 Jun 2015